

54492 Derew

Work Order ID 47872

December 10, 2009 10:22:49 AM

Page 1

Item ID: D3650-5

Accept

Revision ID: C

Item Name: Fwd Panel

REFERENCE ONLY

Start Date: 7/15/2009 Start Qty: 4.00

Required Date: 8/3/2009 Req'd Qty: 4.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: *mf*Date: *09-12-09*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3650

Rev C

100

0.00



✓ FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3650 ☐ Dwg Rev: ☐ Prog Rev: ☐ 2-
Debur if necessary

110

0.00



✓ QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

120

0.00



✓ QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

see original w/o

Work Order ID 47872

December 10, 2009 10:22:50 AM



Page 2

Item ID: D3650-5

Accept



Setup Start



Revision ID: C

Stop



Item Name: Fwd Panel

Start Date: 7/15/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	✓ NC BRAKE	0.00							
Brake NC	Memo	0.00							
Brake NC	Form as per Dwg D3650								
140 	✓ QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
150 	✓ Small Fab	0.00							
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg D3650								

Work Order ID 47872

December 10, 2009 10:22:50 AM



Page 3

Item ID: D3650-5

Accept



Setup Start



Revision ID: C

Stop



Item Name: Fwd Panel

Start Date: 7/15/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

170



Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

180



QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control



Date: Monday, 11/05/2009 1:39:13 PM
User: Julie Dawson

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : WELDMENT TOP PANEL
Job Number : 47872	
Estimate Number : 13030	
P.O. Number :	
This Issue : 11/05/2009 S.O. No. :	Part Number : D36505
Prsht Rev. : NC	Drawing Number : D3650 UNDER REVIEW
First Issue : // Type : SMALL /MED FAB	Project Number : N/A
Previous Run : 44673	Drawing Revision : C
Written By :	Material :
Checked & Approved By :	Due Date : 05/06/2009 Qty: 4 Um: Each
Comment : Est Rev:A New Issue 07-09-27 DD verified by: EC	
Est Rev:B ECN 1113P 08-01-22 DD	
Est Rev:C ecn1162 08-04-02 DD verified by: EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M304S26GA	304/316 0.018 SHEET
-----	-----------	---------------------



Comment: Qty.: 0.8537 sf(s)/Unit Total : 3.4146 sf(s)
304/316 SS sheet 26 ga (0.018" thick)
Batch: 109398 B 9-6-2

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET
1-Cut as per Dwg D3650
Dwg Rev: C
Prog Rev: C

B 9-6-2

2-Deburr if necessary B 9-6-2

6

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

B 9-6-2

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

S 09260602 X6

5.0	BRAKE NC	NC BRAKE
-----	----------	----------



Comment: NC BRAKE
Form as per Dwg D3650

SB 09/06/10

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 11/05/2009 1:39:13 PM
User: Julie Dawson

D 38 93-1

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WELDMENT TOP PANEL

Job Number: 47872

Part Number: D36505

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

502/06/10 (+6)

7.0

D36507

Seal



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

SEAL
batch

B4/3821

SB

09/12/03

8.0

D36509

Angle



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

ANGLE
batch

B4/2097

①

B 43823 ⑤

SB 09/12/03

9.0

AN960C4

WASHER



Comment: Qty.: 12.0000 Each(s)/Unit Total : 48.0000 Each(s)

WASHER
batch

N/A W

10.0

NAS9307M403

RIVET



Comment: Qty.: 12.0000 Each(s)/Unit Total : 48.0000 Each(s)

RIVET
batch

M 109545

SB

09/12/03

11.0

MS20427M33

Rivet



Comment: Qty.: 8.0000 Each(s)/Unit Total : 32.0000 Each(s)

Rivet
batch

M 110022

SB

09/12/03

12.0

MS210603K

Nut Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Nut Plate
batch

M 105438
M 109438

④
⑤

109590

① x

SB 09/12/03

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09/12/3	7.1	add Doubler Per DEO D3450-C-1 D3893-1 B. 52489	SB	09/12/3	6		

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, '11/05/2009 1:39:13 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WELDMENT TOP PANEL

Job Number: 47872

Part Number: D36505

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

MS210623K

Nut Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Nut Plate H 105 938

batch H 109 438

(7)

H 109390

(7)

83 09/12/03

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: Assemble as per dwg D3650

85 09/12/03

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

86 09/12/07 (76)

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and stock

Location: ST189

89 09/12/08 (6)

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/12/10

Job Completion



MF 09-12-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 47872
Description: WELDMENT TOP PANEL		Part Number: D3650-5
Inspection Dwg: D3650-5 Rev: C		D3650-5 Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø .098	+ .004 - .001	.100	*			
Ø .213	+ .005 - .001	.215	*			
Ø .21	+ .005 - .001	.212	*			
1.14	+/- .030	1.141	*			
11.69	+/- .030	11.689	*			
10.11	+/- .030	10.100	*			
.11	+/- .030	.118	*			
1.93	+/- .030	1.931	*			
5.87	+/- .030	5.874	*			
8.23	+/- .030	8.239	*			
9.18	+/- .030	9.185	*			
10.45	+/- .030	10.438	*			
.40	+/- .030	.407	*			
10.11	+/- .030	10.107	*			
3.370	+/- .010	3.370	*			
11.71	+/- .030	11.693	*			
1.17	+/- .030	1.17	*			
8.34	+/- .030	8.339	*			
.344	+/- .010	.344	*			
.312	+/- .010	.311	*			
.618	+/- .010	.618	*			
.351	+/- .010	.352	*			
.35	+/- .030	.352	*			

Measured by: IB	Audited by: S	Prototype Approval: A
Date: 9-6-2	Date: 09/06/02	Date: A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

8

7

6

5

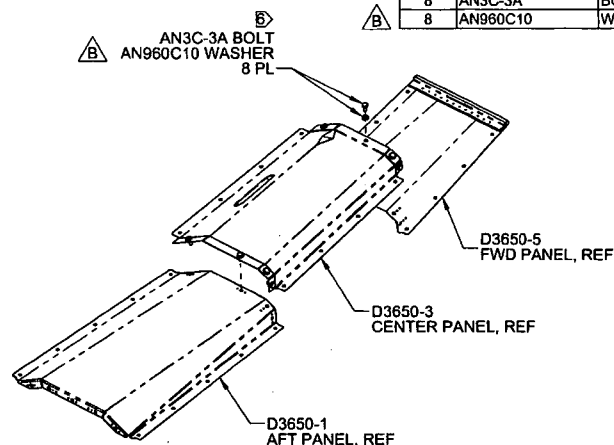
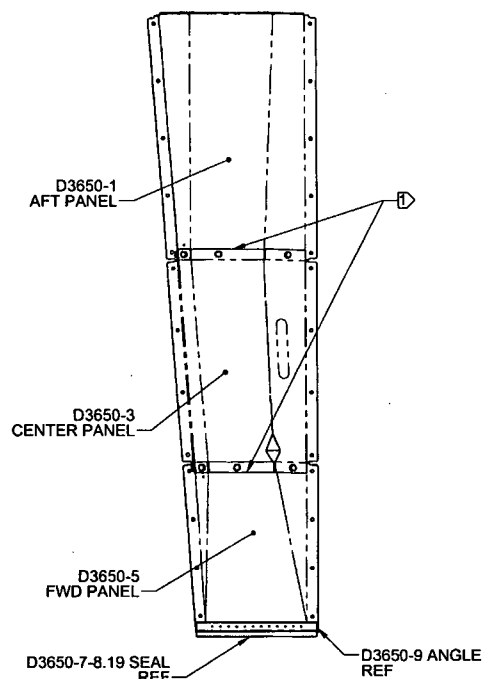
4

3

2

1

QTY	PART NUMBER	DESCRIPTION
X	D3650-041	TUNNEL TOP PANEL ASSEMBLY
1	D3650-1	AFT PANEL
1	D3650-3	CENTER PANEL
1	D3650-5	FWD PANEL
8	AN3C-3A	BOLT
8	AN960C10	WASHER



UNDER REVIEW

07.07.05 UP
PAR 09-008RELEASED
08.11.17 MP

C	REFORMATTED TO NEW STANDARDS; RELOCATED PART LIST (ZN D2-2); ADDED SECTION VIEW J-J & REVISE DIMENSIONS (ZN B7-5, C4-5); ADDED RECESS LOCATION & REVISED DIMENSIONS (ZN C6-6, D5-6); MS20615-4M5 WAS CR3523-4-03 & NAS1149CN432R WAS AN960C4 (ZN D5-7; B5-7; B8-7)	RF	08.10.14
B	SHEETS 1, 2 & 7: UPDATED FASTENER QUANTITIES; UPDATED VIEWS; SHEETS 3 & 8: REMOVED/RELOCATED HOLES; UPDATED VIEWS; SHEET 4: 1.8 WAS 1.5; 1.0 WAS 0.8; UPDATED VIEW; ADDED NOTE 8; SHEET 5: REMOVED NOTE IN C6 & ASSOCIATED DIMS; UPDATED VIEWS; SHEET 6: REMOVED/RELOCATED HOLES & ADDED CUTOUT TO D3650-3F; MOVED D3650-11/-11F TO SHEET 9; ADDED DETAIL I; SHEET 9: RELOCATED D3650-11/-11F FROM SHEET 6; UPDATED DIMS OF D3650-11/-11F	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 1 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	1:8
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

NOTES:

- 1) SEAL ALL MATING SURFACES AND ALL GAPS USING PROSEAL 700 FIRE WALL SEALANT
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) UNITS: INCHES UNLESS OTHERWISE NOTED
- 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 5) IDENTIFICATION: NONE
- 6) TORQUE FASTENERS 15 TO 25 in-lb
- 7) WEIGHT: 3.3 lbs

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8

7

6

5

4

3

2

1

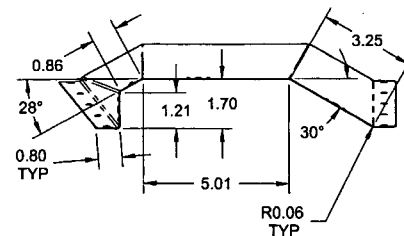
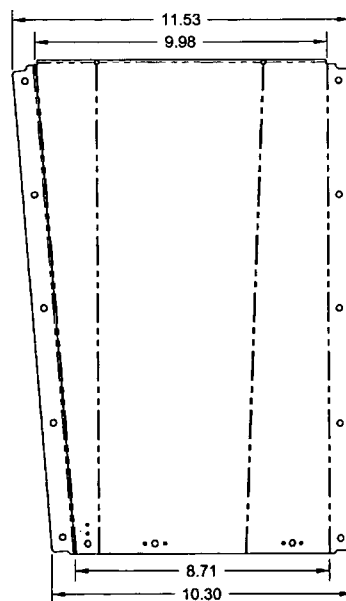
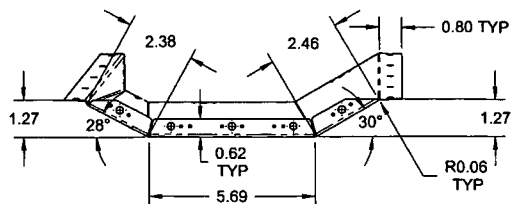
MS21060-3K NUTPLATE
MS20427M3-3 RIVET, 2 PL
6 PL

B

D3650-1B
AFT PANEL BENT PART

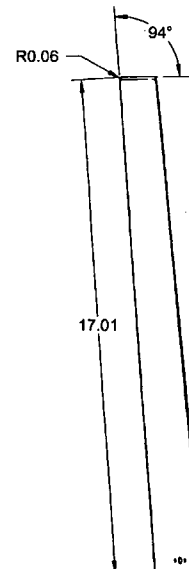
MS21062-3K NUTPLATE
MS20427M3-3 RIVET, 2 PL
3 PL

D3650-1 AFT PANEL



QTY	PART NUMBER	DESCRIPTION
1	D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUT PLATE

B



UNDER REVIEW

RELEASED

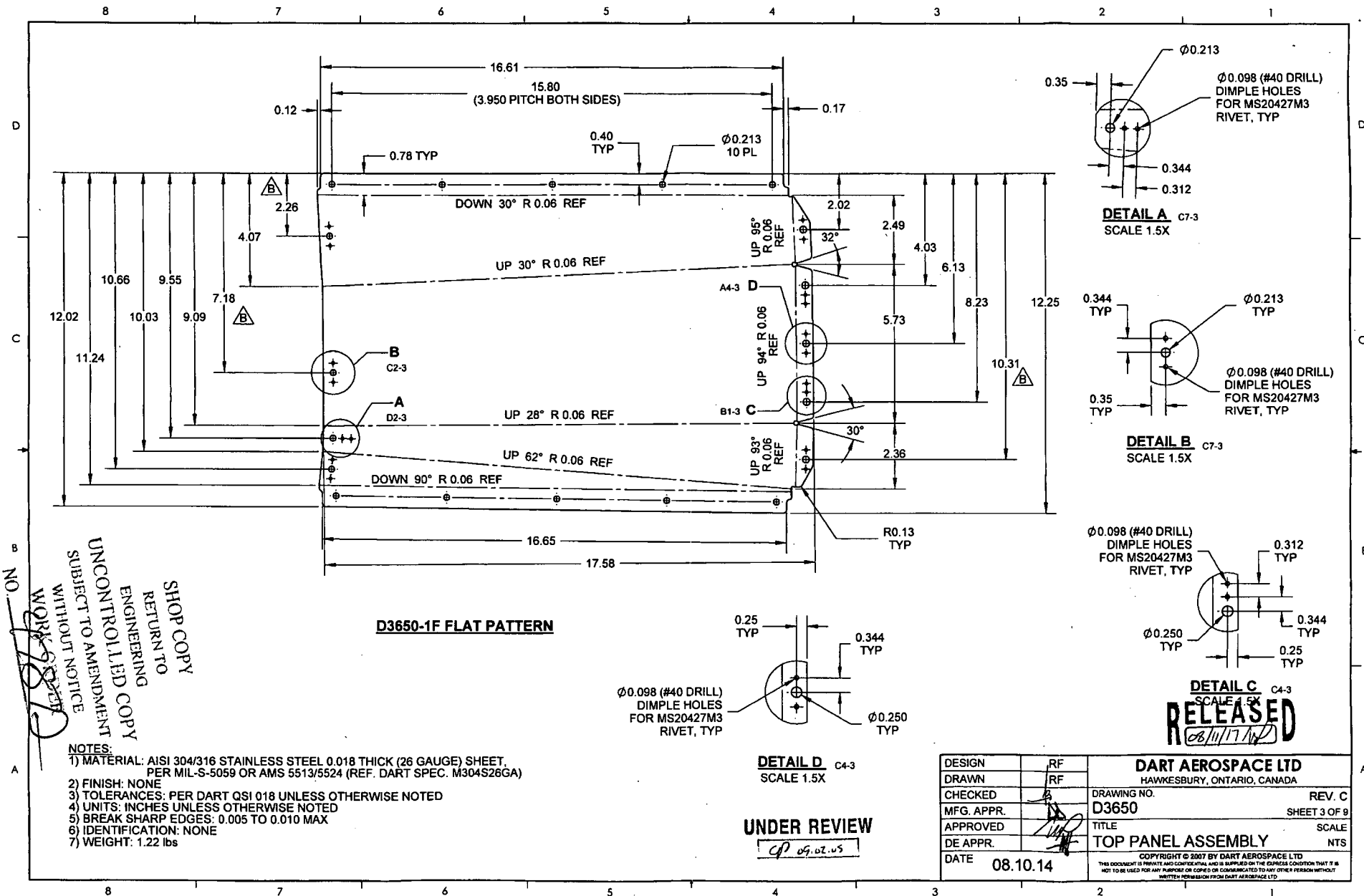
D3650-1B AFT PANEL BENT PART
(MAKE FROM D3650-1F FLAT PATTERN)

NOTES:

- 1) FINISH: NONE
- 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) UNITS: INCHES UNLESS OTHERWISE NOTED
- 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 5) IDENTIFICATION: NONE
- 6) WEIGHT: 1.3 lbs

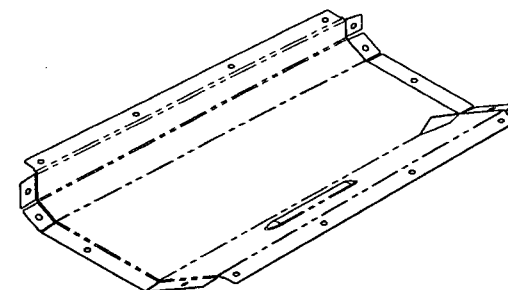
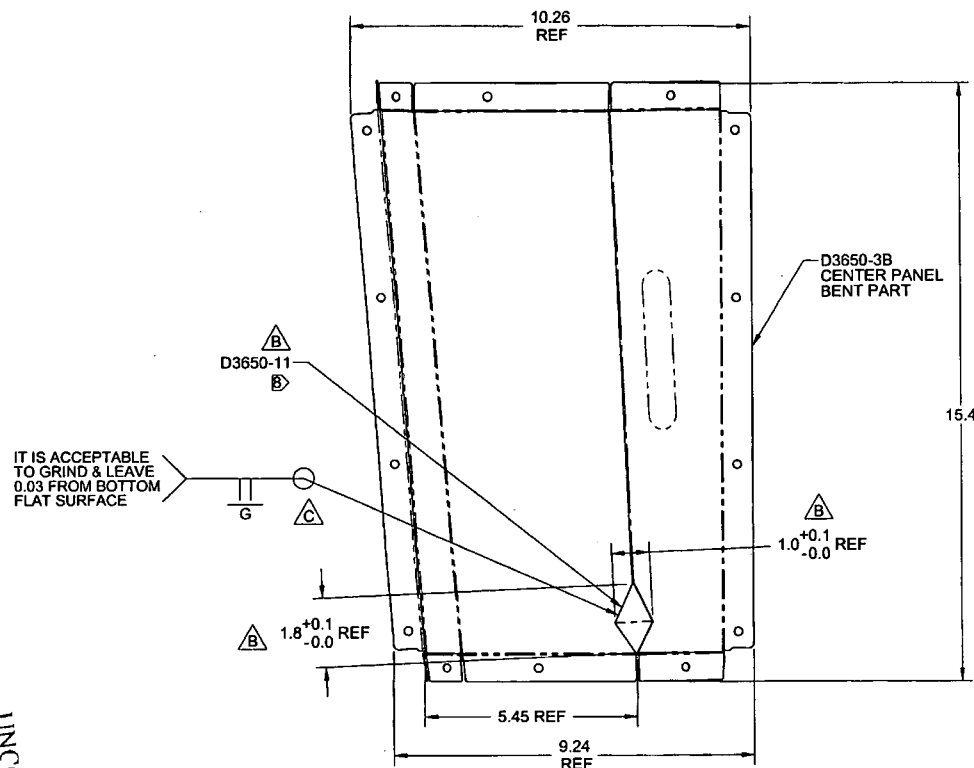
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CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 2 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
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QTY	PART NUMBER	DESCRIPTION
3	D3650-3	CENTER PANEL
1	D3650-3B	CENTER PANEL BENT PART
1	D3650-11	FILLER PLATE



D3650-3 CENTER PANEL
(LOOKING FROM OUT SIDE SURFACE)

NO. 181872
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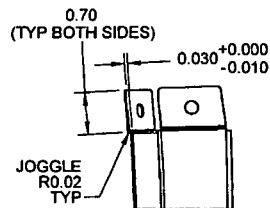
- NOTES:
- 1) WELD PER QSI 004
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 1.0 lb
 - 8) TRIM D3650-11 TO FIT AS REQUIRED

UNDER REVIEW

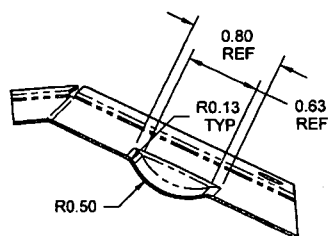
17 09.02.05

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08.10.14

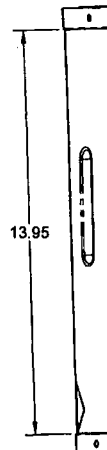
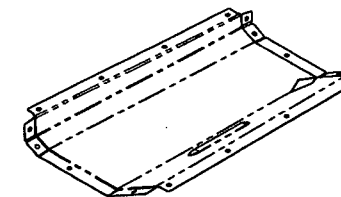
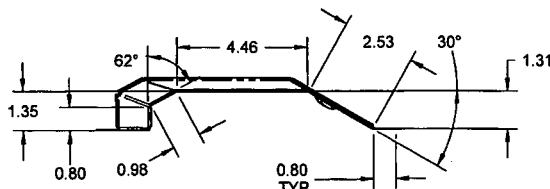
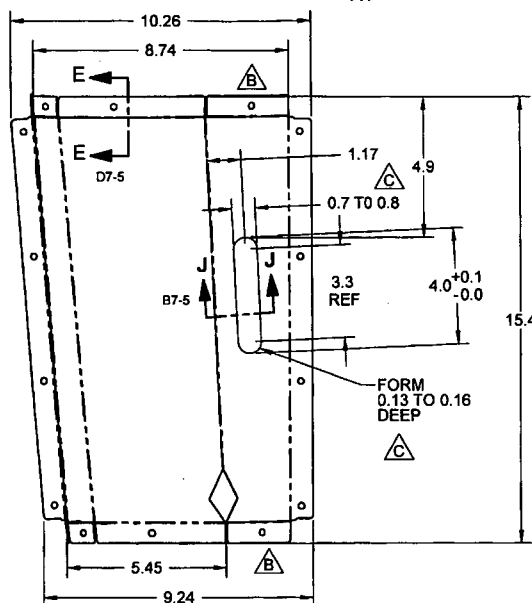
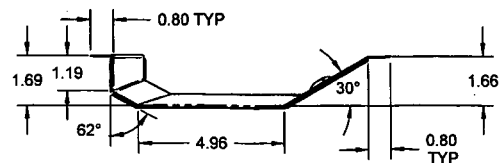
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 4 OF 9
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SECTION E-E D5-5
SCALE 2X



SECTION J-J C5-5
SCALE 3.5X







D3650-3B CENTER PANEL BENT PART
(MAKE FROM D3650-3F FLAT PATTERN)

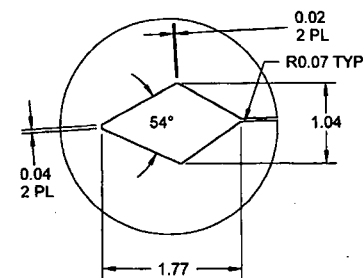
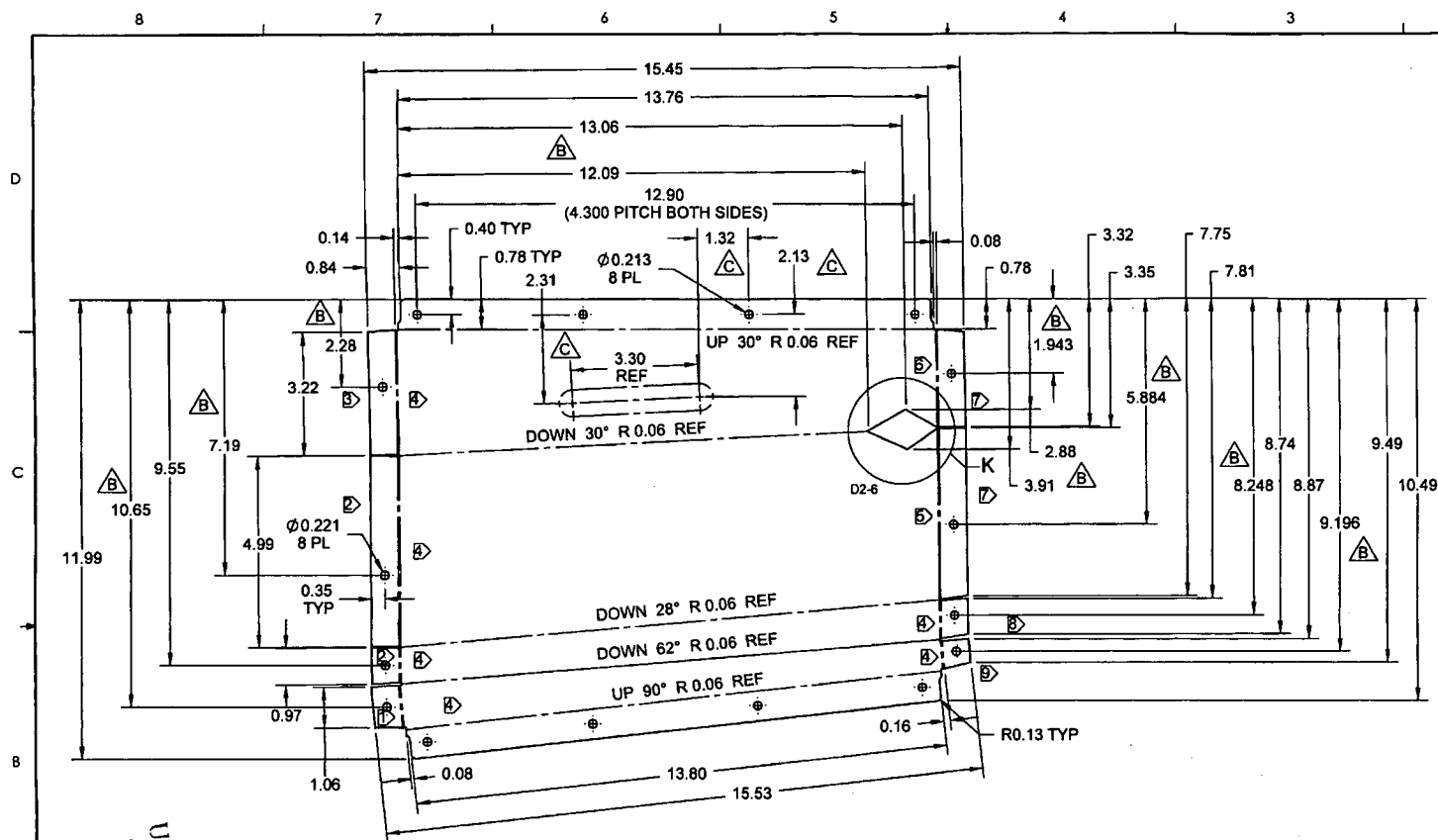
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- NOTES:
- 1) FINISH: NONE
 - 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 3) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 5) IDENTIFICATION: NONE

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 5 OF 9
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C5-6 **DETAIL K**
SCALE 2X

- ① DOWN 92° R 0.015
- ② DOWN 89° R 0.015
- ③ DOWN 86° R 0.015
- ④ UP 90° R 0.015
- ⑤ UP 88° R 0.015
- ⑥ UP 90° R 0.015
- ⑦ DOWN 88° R 0.015
- ⑧ DOWN 90° R 0.015
- ⑨ DOWN 94° R 0.015

D3650-3F CENTER PANEL FLAT PATTERN **A**

RELEASED
08/11/17

- D3650-3F NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE

UNDER REVIEW
09.02.05

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	B	DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 6 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

MS21062-3K NUTPLATE
MS20427M3-3 RIVET, 2 PL
2 PL

MS21060-3K NUTPLATE
MS20427M3-3 RIVET, 2 PL
2 PL

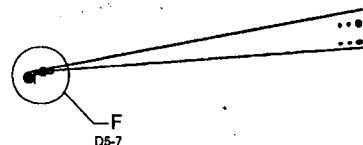
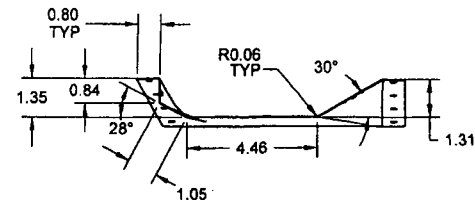
D3650-5B
FWD PANEL
BENT PART
REF

NAS1149CN432R
WASHER, REF
0.74
0.07
D3650-7-8.19 SEAL
D3650-9 ANGLE

D3650-5B FWD PANEL
BENT PART
REF

MS20815-4M5
RIVET, REF

DETAIL F
SCALE 3.5X



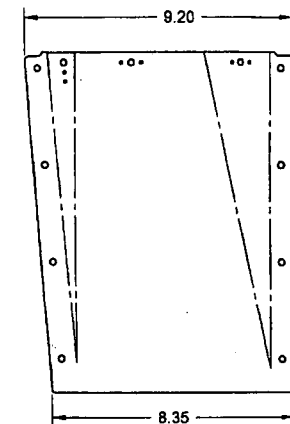
D3650-9 REF

D3650-7-8.19
REF

D3650-5B
FWD PANEL
BENT PART

CENTRE D3650-7/-9 ON D3650-5B &
TRANSFER $\varnothing 0.129$ (#30 DRILL) HOLES
FROM D3650-9 TO D3650-7 & D3650-5B
AS SHOWN
INSTALL
MS20815-4M5 RIVET
NAS1149CN432R WASHER
12 PL

D3650-5 FWD PANEL



D3650-5B FWD PANEL BENT PART
(MAKE FROM D3650-5F FLAT PATTERN)

RELEASED
2011/17/14




PART LIST

QTY	PART NUMBER	DESCRIPTION
X	D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
12	NAS1149CN432R	WASHER
12	MS20815-4M5	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.8 lbs

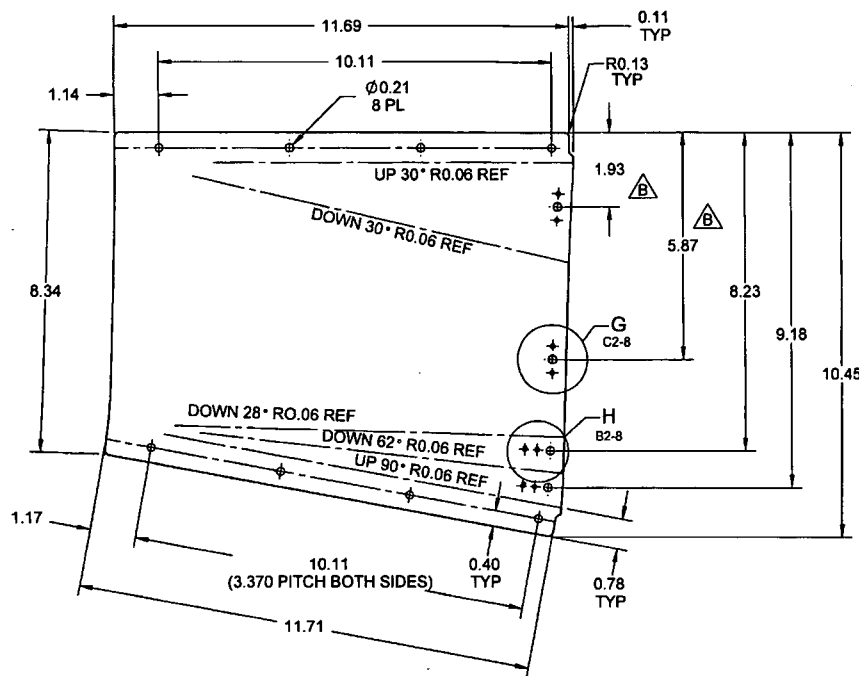
UNDER REVIEW
09.02.05

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.10.14	DRAWING NO. D3650	REV. C
		TITLE TOP PANEL ASSEMBLY	SHEET 7 OF 7
			SCALE NTS

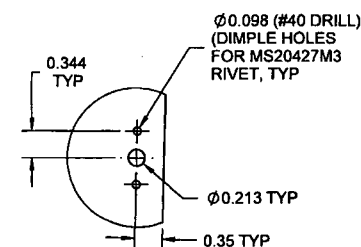
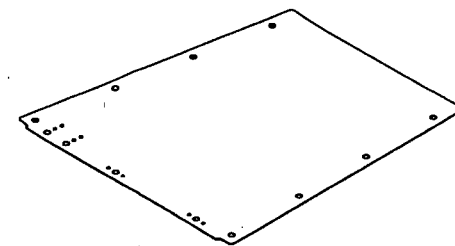
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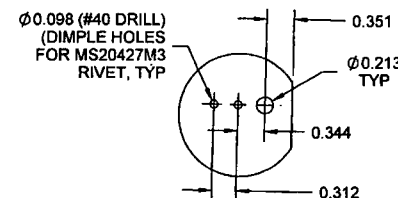
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RETURN TO
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WORK ORDER
1782



D3650-5F FLAT PATTERN



DETAIL G
2 PL
SCALE 1.5X






DETAIL H
2 PL
SCALE 1.5X

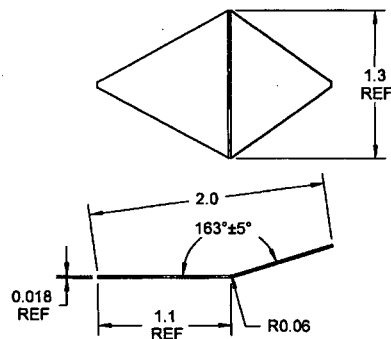
RELEASED
08/11/17

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 42872

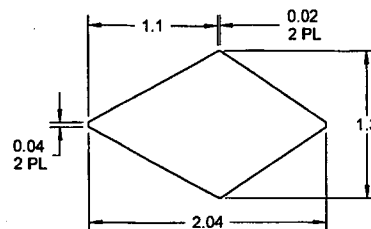
- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.6 lb

UNDER REVIEW
09.02.05

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 8 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
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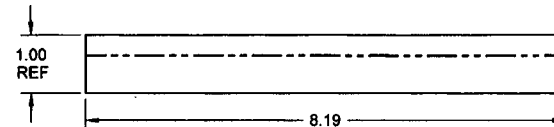
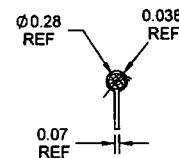
D3650-11 FILLER PLATE
(MAKE FROM D3650-11F FLAT PATTERN)



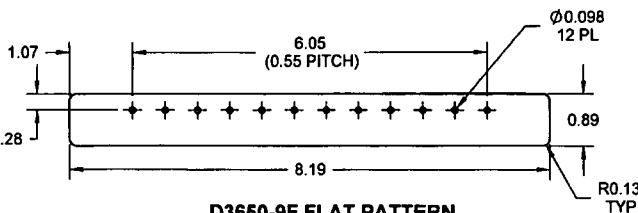
D3650-11F FLAT PATTERN



D3650-9 ANGLE
(MAKE FROM D3650-9F FLAT PATTERN)



D3650-7-8.19 SEAL



D3650-9F FLAT PATTERN

D3650-7-8.19 NOTES:





- 1) MATERIAL: P/N 8168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb
- 8) PART NUMBER: D3650-7-X.XX
WHERE X.XX = LENGTH IN INCHES
EG. 12.50" LONG = D3650-7-12.50

RELEASED
08/10/14

D3650-9 & D3650-11 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET,
PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) D3650-9 WEIGHT: 0.05 lb
D3650-11 WEIGHT: 0.007 lb

UNDER REVIEW
08.10.14

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 9 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
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NO. 147879
WORK ORDER
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SHOP COPY

DRAWING NO. D3650	TITLE TOP PANEL ASSEMBLY	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3650-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN CP	CHECKED	MFG. APPR.	APPROVED	DE APPR.			
DATE 09.06.12	DATE 04.06.15	DATE 09.06.15	DATE 09/06/15	DATE 09/06/15			

TO AMEND D3650-5 FWD PANEL:

REF PAR 09-008. THE QTY(12) NAS1149CN432R WASHERS ARE REPLACED WITH QTY(1) D3893-1 DOUBLER. THE QTY(12) MS20615-4M5 RIVETS ARE REPLACED WITH QTY(12) NAS9307M-4-03 RIVETS. LOCATION OF THE DOUBLER IS SHOWN IN THE AMENDED DETAIL F (DWG SHEET 7) BELOW. THE PARTS LIST FOR D3650-5 IS AMENDED AS FOLLOWS:

IS:

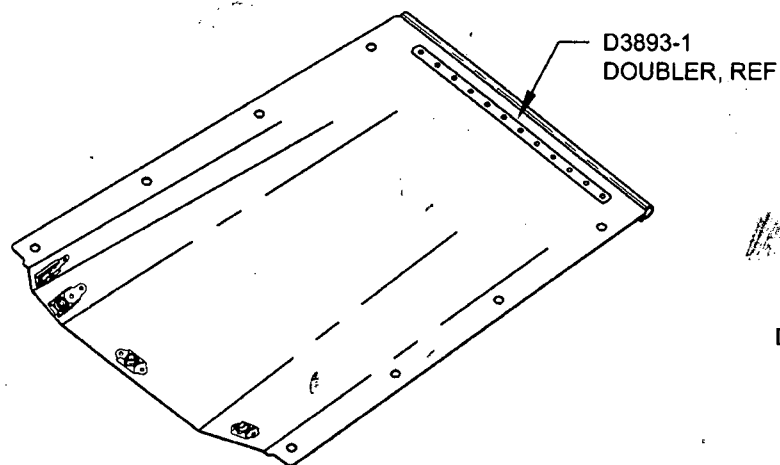
QTY	PART NUMBER	DESCRIPTION
-5		
1	D3893-1	DOUBLER
12	NAS9307M-4-03	RIVET (OR CR3523-4-03)

WAS:

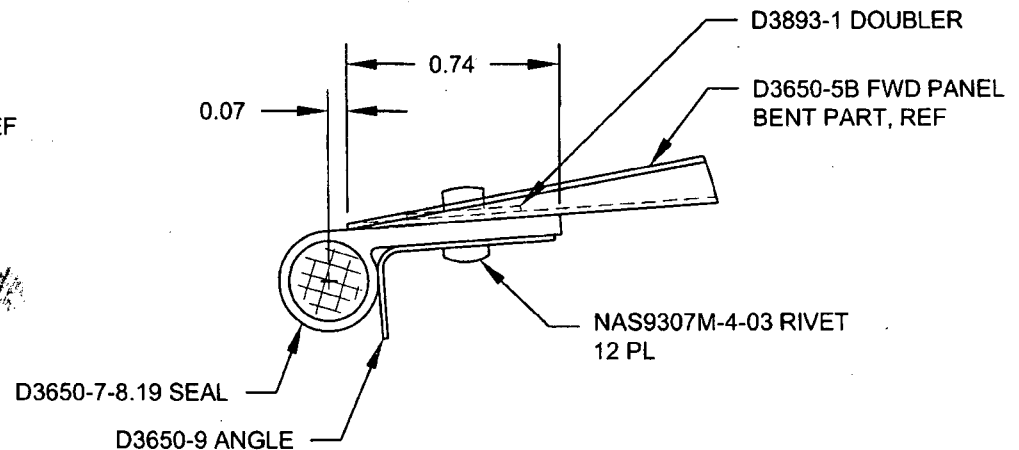
QTY	PART NUMBER	DESCRIPTION
-5		
12	NAS1149CN432R	WASHER
12	MS20615-4M5	RIVET

RELEASED
09/06/15

WLO
47872



D3650-5 FWD PANEL



DETAIL F C5-7
SCALE 3.5X

Work Order ID 47872

June 26, 2009 12:35:22 PM



Page 1

Item ID: D3650-5

Accept



Setup Start



Revision ID: C

Stop



Item Name: Fwd Panel

Start Date: 15/07/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 03/08/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

mf

Date:

09-09-24

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3650

Rev C

100

0.00



FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3650 11 Dwg Rev: _____ 12-
Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

Work Order ID 47872

June 26, 2009 12:35:22 PM



Page 2

Item ID: D3650-5

Accept



Setup Start



Revision ID: C

Stop



Item Name: Fwd Panel

Start Date: 15/07/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 03/08/2009 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 	NC BRAKE	0.00							
Brake NC	Memo	0.00							
Brake NC	Form as per Dwg D3650								
140 	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
150 	Small Fab	0.00							
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg D3650								

Work Order ID 47872

June 26, 2009 12:35:22 PM

Page 3

Item ID: D3650-5

Revision ID: C

Item Name: Fwd Panel

Start Date: 15/07/2009 Start Qty: 4.00

Required Date: 03/08/2009 Req'd Qty: 4.00

Reference:

Accept

Setup Start

Stop

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation ~
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC5- Inspect part completeness to step'on W/O

0.00



QC

Memo

0.00

Quality Control

170

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

June 26, 2009 12:35:21 PM

Page 17

Parent Item: D3650-5RevC

Parent Item Name: Fwd Panel

Comments:

Start Date: 15/07/2009

Required Date: 03/08/2009

Start Qty: 4.00

Required Qty: 4.00

[illegible]

A 3893-1

Qty 1

Batch / 052689

109/12/03

* Was chg on 09/07/28